

**The role of adiponectin gene variants in glycemic control in patients with Type 2 diabetes**

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**Abstract:** The aim of this study was to investigate the association between glycemic control in Type 2 diabetes mellitus patients and common genetic variants of ADIPO gene. A total of 427 Type 2 diabetes patients were recruited in the study and divided into two groups: 172 patients with good glycemic control and 249 with poor glycemic control. Genotyping of C11377G, G276T and T45G ADIPO SNPs were carried out using restriction fragment length polymorphisms-polymerase chain reaction. The results showed that C 11377G ADIPO SNP is strongly associated with glycemic control in Type 2 diabetes patients. Patients with the GG genotype at adiponectin C11377G had better glycemic control than those with CC or CG genotypes. However, other examined SNPs were not correlated with glycemic control in Type 2 diabetes patients. Other parameters that impacted glycemic control include duration of the disease ( $p < 0.05$ ). Glycemic control among Type 2 diabetes patients might be affected by variants in ADIPO gene.